2827

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Preliminary Amendment
Office
5-29-02

In re Application of:

Warren M. Farnworth

Serial No.: 10/043,362

Filed: January 9, 2002

For: STEREOLITHOGRAPHIC METHODS FOR FABRICATING HERMETIC SEMICONDUCTOR DEVICE PACKAGES AND SEMICONDUCTOR DEVICES INCLUDING STEREOLITHOGRAPHICALLY FABRICATED HERMETIC PACKAGES

Examiner: Unknown

Group Art Unit: Unknown

Attorney Docket No.: 4212.1US (99-0306.1)

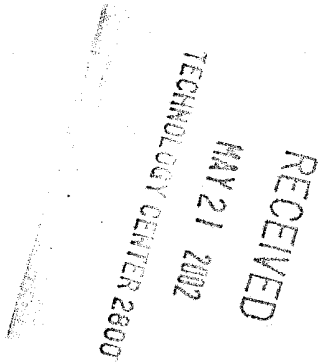
CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail (under 37 C.F.R. § 1.8(a)) on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for ~~Patents, Washington~~, D.C. 20231.

May 14, 2002
Date of Deposit

Signature of registered practitioner or other person having reasonable basis to expect mailing to occur on date of deposit shown pursuant to 37 C.F.R. § 1.8(a)(1)(ii)

Deidra Pfeil
Typed/printed name of person whose signature is contained above



PRELIMINARY AMENDMENT

Box Non-Fee Amendment
Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the above-referenced patent application on the merits, entry of the amendments as set forth herein is respectfully solicited.

IN THE CLAIMS:

Claim 16 has been amended herein. All of the pending claims 1 through 19 are presented, pursuant to 37 C.F.R. §§ 1.121(c)(1)(i) and 1.121(c)(3), in clean form below. Please enter these claims as amended. Attached is a marked-up version of the claim amended herein pursuant to 37 C.F.R. § 1.121(c)(1)(ii).

1. A packaged semiconductor device, comprising:
a connection element;
at least one semiconductor die operably connected to said connection element; and
a hermetic package substantially sealing at least a portion of said at least one semiconductor die from an external environment, said hermetic package comprising a plurality of superimposed, contiguous, mutually adhered layers of a hermetic packaging material.

2. The packaged semiconductor device of claim 1, wherein said connection element comprises a carrier substrate.

3. The packaged semiconductor device of claim 2, wherein a surface of said at least one semiconductor die is disposed against said carrier substrate.

4. The packaged semiconductor device of claim 3, wherein said hermetic package covers at least another surface of said at least one semiconductor die.

5. The packaged semiconductor device of claim 1, wherein said connection element comprises a lead frame.

6. The packaged semiconductor device of claim 5, wherein said hermetic package covers at least said at least one semiconductor die.

7. The packaged semiconductor device of claim 6, wherein said hermetic package also covers a portion of said lead frame adjacent to said at least one semiconductor die.

8. The packaged semiconductor device of claim 1, wherein said hermetic packaging material comprises thermoplastic glass.

9. The packaged semiconductor device of claim 1, wherein said hermetic packaging material comprises ceramic or metal.

10. A substantially hermetically packaged semiconductor device, comprising:
a semiconductor die; and
a package surrounding at least a portion of said semiconductor die and substantially hermetically sealing same, said package comprising a plurality of superimposed, contiguous, mutually adhered layers, each of said layers comprising a thermoplastic glass.

11. The semiconductor device of claim 10, further comprising a carrier substrate connected to said semiconductor die.

12. The semiconductor device of claim 10, further comprising a lead frame connected to said semiconductor die and at least partially substantially hermetically sealed by said package.

13. The semiconductor device of claim 10, wherein said package further comprises at least one external circuit in communication with at least one bond pad of said semiconductor die.

14. A package for substantially hermetically packaging a semiconductor device, comprising at least one portion, said at least one portion comprising a plurality of superimposed, contiguous, mutually adhered layers of hermetic packaging material.

15. The package of claim 14, wherein said at least one portion includes a receptacle configured to receive at least a portion of the semiconductor device and to substantially seal a semiconductor die of the semiconductor device from an environment external to the package.

16. (Amended) The package of claim 14, wherein the package further comprises another portion configured to be assembled with said at least one portion so as to substantially seal a semiconductor die of the semiconductor device from an environment external to the package.

17. The package of claim 16, wherein said another portion also comprises a plurality of superimposed, contiguous, mutually adhered layers of hermetic packaging material.

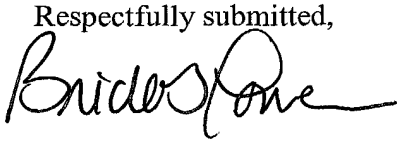
18. The package of claim 14, wherein said hermetic packaging material comprises a thermoplastic glass.

19. The package of claim 14, wherein said hermetic packaging material comprises a ceramic or a metal.

REMARKS

No new matter has been added. The Applicant again requests entry of the amendments as set forth in the Appendices hereto prior to examination of the application on the merits.

Respectfully submitted,



Brick G. Power
Registration No. 38,581
Attorney for Applicant
TRASKBRITT
P. O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: (801) 532-1922

Date: May 14, 2002

BGP/df